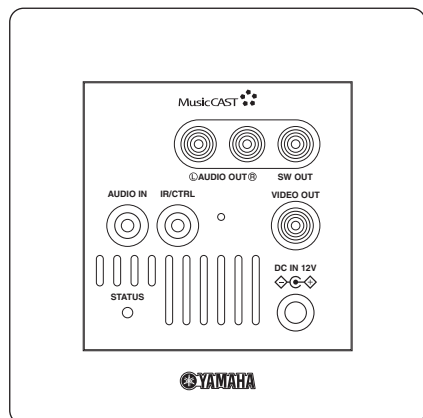


MusicCAST 

MCX-CA15

Distributed Audio Amplifier



OWNER'S MANUAL

COMPLIANCE INFORMATION STATEMENT

(DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party: Yamaha Electronics Corporation, U.S.A.
Address: 6660 Orangethorpe Avenue
Buena Park, CA 90620
Telephone: 714-522-9105
Fax: 714-670-0108
Type of Equipment: Distributed Audio Amplifier
Model Name: MCX-CA15

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following conditions:

- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received including interference that may cause undesired operation.

See the "TROUBLESHOOTING" section at the end of this manual if interference to radio reception is suspected.

FCC INFORMATION (for US customers only)

1 IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

- 2 IMPORTANT:** When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

- 3 NOTE:** This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices.

Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.


Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Electronics Corporation, U.S.A. 6660 Orangethorpe Avenue, Buena Park, CA 90620.

The above statements apply **ONLY** to those products distributed by Yamaha Corporation of America or its subsidiaries.

CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

- 1 To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
- 2 Install these units in a well ventilated, cool, dry, clean place — away from direct sunlight, heat sources, vibration, dust, moisture, and/or cold. Allow ventilation space of at least 10 cm on the top, bottom, left and right. Also make sure the rear of these units is not touching the opposite wall.
- 3 Locate these units away from other electrical appliances, motors, or transformers to avoid humming sounds.
- 4 Do not expose these units to sudden temperature changes from cold to hot, and do not locate these units in an environment with high humidity (i.e. a room with a humidifier) to prevent condensation inside these units, which may cause an electrical shock, fire, damage to these units, and/or personal injury.
- 5 Avoid installing these units where foreign objects may fall onto these units and/or these units may be exposed to liquid dripping or splashing. On the top of these units, do NOT place:
 - Other components, as they may cause damage and/or discoloration on the surface of these units.
 - Burning objects (i.e. candles), as they may cause fire, damage to these units, and/or personal injury.
 - Containers with liquid in them, as they may fall and liquid may cause electrical shock to the user and/or damage to these units.
- 6 Do not cover these units with a newspaper, tablecloth, curtain, etc. in order not to obstruct heat radiation. If the temperature inside these units rises, it may cause fire, damage to these units, and/or personal injury.
- 7 Do not plug these units into a wall outlet until all connections are complete.
- 8 Do not operate these units upside-down. They may overheat, possibly causing damage.
- 9 Do not use force on switches, knobs and/or cords.
- 10 When disconnecting the power cord from the wall outlet, grasp the plug; do not pull the cord.
- 11 Do not clean these units with chemical solvents; this might damage the finish. Use a clean, dry cloth.
- 12 Only the voltage specified on these units must be used. Using these units with a higher voltage than specified is dangerous and may cause fire, damage to these units, and/or personal injury. YAMAHA will not be held responsible for any damage resulting from use of these units with a voltage other than that specified.
- 13 To prevent damage by lightning, disconnect the power cord from the wall outlet during an electrical storm.
- 14 Do not attempt to modify or fix these units. Contact qualified YAMAHA service personnel when any service is needed. The cabinet should never be opened for any reason.
- 15 When not planning to use these units for long periods of time (i.e. when going on vacation), disconnect the AC power plug from the wall outlet.
- 16 Be sure to read the “TROUBLESHOOTING” section in the MCX-C15 Owner’s Manual or MCX-CA15 Owner’s Manual on common operating errors before concluding that one or both of these units are faulty.
- 17 Before moving these units, press /1 on the MCX-C15 to place them in the sleep mode, and disconnect the AC power plug from the wall outlet.
- 18 Be sure to use the AC adaptor (LSE0215C1240) supplied with the MCX-C15. Using an AC adaptor other than the one provided may cause fire or damage to these units.
- 19 These units are designed for home use only. Never use these units in a car, etc. Doing so may cause these units to malfunction.

These units are not disconnected from the AC power source as long as they are connected to the wall outlet, even if the unit itself is turned off. This state is called the sleep mode. In this state, these units are designed to consume a very small quantity of power.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THESE UNITS TO RAIN OR MOISTURE.

IMPORTANT

Please record the serial number of these units in the space below.

MODEL:

Serial No.:

MODEL:

Serial No.:

The serial number is located on the rear of each unit. Retain this Owner's Manual in a safe place for future reference.

SPECIAL INSTRUCTIONS FOR U.K. MODEL

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

GREEN-and-YELLOW: Earth

BLUE: Neutral

BROWN: Live

As the colours of the wires in the mains lead of each unit may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter

E or the safety earth symbol \perp , or coloured GREEN or GREEN - and YELLOW. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

For U.K. customers

If the socket outlets in your home are not suitable for the plug supplied with this appliance, it should be cut off and an appropriate 3 pin plug fitted. For details, refer to the instructions above.

Note: The plug severed from the mains lead must be destroyed, as a plug with a bared flexible cord is hazardous if engaged in a live socket outlet.

For Canadian Customers

To prevent electric shock, match the wide blade of the plug to the wide slot and fully insert.

This Class B digital apparatus complies with Canadian ICES-003.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

CONTENTS

INTRODUCTION

FEATURES	2
SUPPLIED ACCESSORIES.....	3
CONTROLS AND FUNCTIONS	4
Front panel.....	4
Inside front panel	5
Rear panel	6
Bottom panel	7

USING THE MCX-CA15

OPERATION.....	8
Operation modes.....	8
Input level sensing function.....	11
RESET button.....	11

ADDITIONAL INFORMATION

TROUBLESHOOTING	12
SPECIFICATIONS.....	13


FEATURES

The MusicCAST MCX-CA15 Distributed Audio Amplifier (hereafter, the “MCX-CA15”) is designed to output 34 W (17 W per channel) of high-quality power paired with a MusicCAST MCX-C15 Distributed Audio Controller (hereafter, the “client”) to complete the MusicCAST system, or as an amplifier integrated with an existing audio system. As a companion to your client, the MCX-CA15 is fully controllable from the client, and functions as a power amplifier and DC power distributor. It provides high-quality power to all connected speakers, and can display the client’s on-screen display (OSD) on a TV or monitor connected to the MCX-CA15. As a stand-alone amplifier, the MCX-CA15 offers flexibility with two different operation modes to choose from.

The MCX-CA15 is designed to bring you the following features:

- ◆ Operation mode selection switch with three settings for customized use
- ◆ Up to 34 W (17 W per channel) high-quality power output
- ◆ Modern in-wall design with paintable face plate to match every interior
- ◆ In-wall speaker and subwoofer output terminals
- ◆ Selectable pre-amp output for use with an external audio system
- ◆ On-screen video output for menu display on a TV or monitor when used with a client
- ◆ IR flasher output using YAMAHA AV link technology when used with a client
- ◆ DC power output to a client

About this manual

-  indicates a tip for your operation.
- For details regarding installation and network configuration, refer to the Install Manual provided.
- This manual is printed prior to production. Design and specifications are subject to change in part as a result of improvements, etc. In case of differences between the manual and the product, the product has priority.

This unit must be installed by a qualified technician as indicated in the Install Manual provided. Do not attempt to install this unit yourself.

■ We Want You Listening For A Lifetime

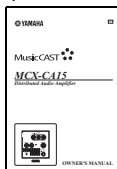
YAMAHA and the Electronic Industries Association’s Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion – and, most importantly, without affecting your sensitive hearing. Since hearing damage from loud sounds is often undetectable until it is too late, YAMAHA and the Electronic Industries Association’s Consumer Electronics Group recommend you to avoid prolonged exposure from excessive volume levels.



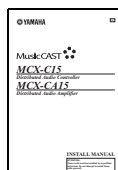
SUPPLIED ACCESSORIES

After unpacking, check that you received all of the following parts.

**Owner's Manual
(this manual)**



Install Manual



Spacers x 4

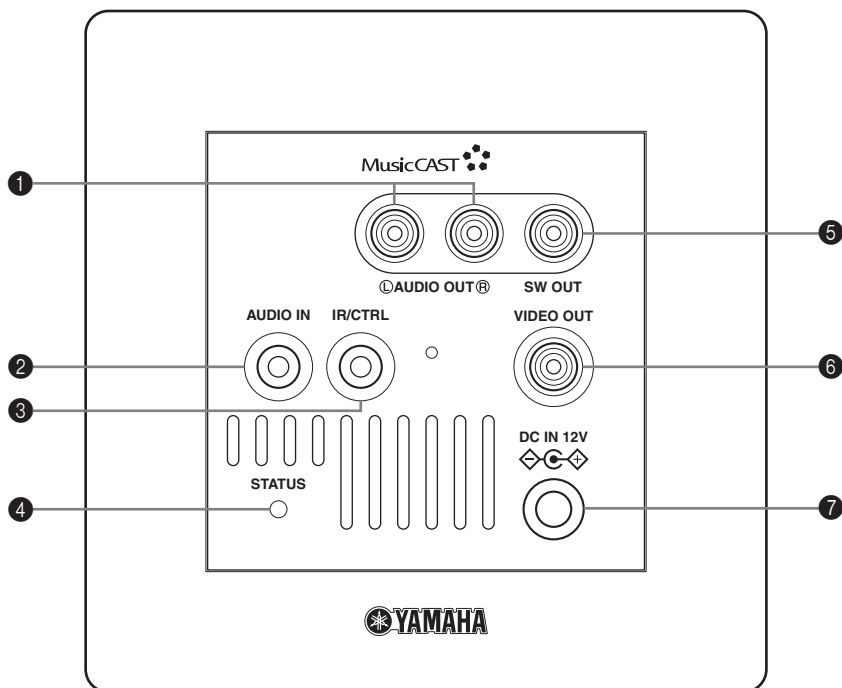


Pin/mini plug cable



CONTROLS AND FUNCTIONS

Front panel



1 AUDIO OUT jacks

Connect a receiver or amplifier (audio input source) to these jacks.

2 AUDIO IN jack

Connect an external stereo source, such as a DVD player or control amplifier if you want to listen to audio from that source.

3 IR/CTRL jack

Connect an IR flasher (infrared emitter) to this jack if you want to control a YAMAHA AV receiver registered on a client.

When this unit is connected to a client, this jack functions as an IR output jack.

When this unit is connected to an external component and the operation mode is set to "C", this jack functions as a control input jack.

4 STATUS indicator

Lights up when this unit is active (receiving a signal).

Dims when this unit is in sleep mode.

Flashes rapidly when the protection circuitry has been activated or an abnormality occurs.

Alternates between fully lit and dimmed for 10 seconds when this unit is first connected to a power source.

5 SW OUT jack

Connect a subwoofer to this jack to enhance bass frequencies.

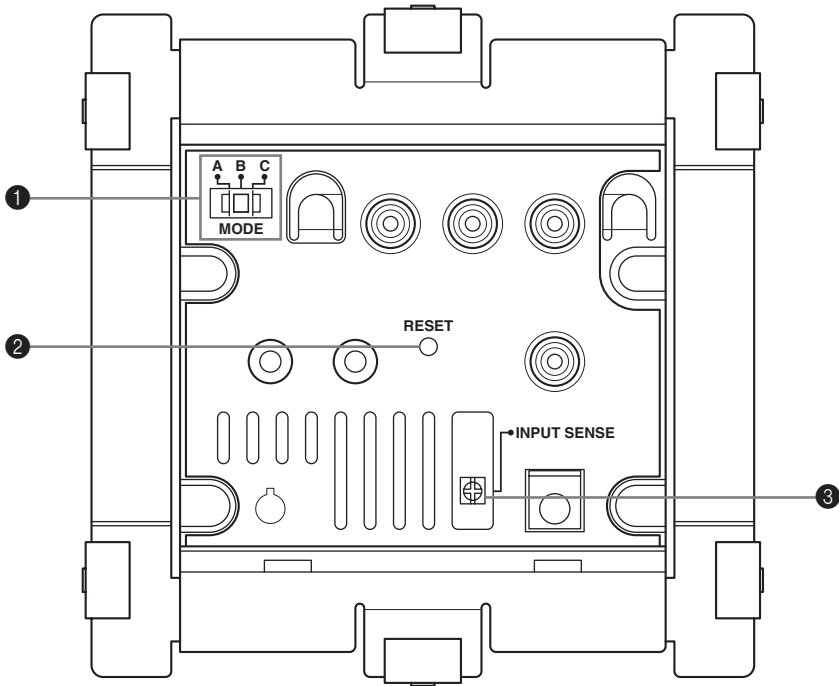
6 VIDEO OUT jack

Connect a TV or monitor to this jack if you want to display the client on-screen menu on the TV/monitor.

7 DC IN 12V jack

Connect the AC adaptor to this jack to supply power to this unit or distribute power to a client.

Inside front panel



❶ MODE switch

Switches between operation modes “A”, “B” and “C” (see page 10).

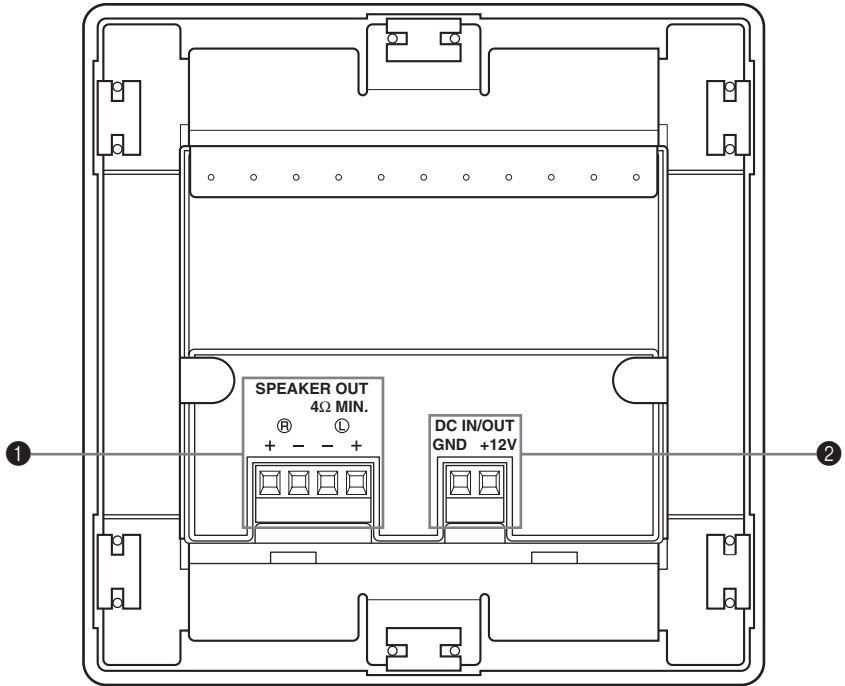
❷ RESET button

Resets this unit after the protection circuitry has been activated or the operation mode has been changed (see page 11).

❸ INPUT SENSE

Detects the presence of signals input through the AUDIO IN jack (see page 11).

Rear panel



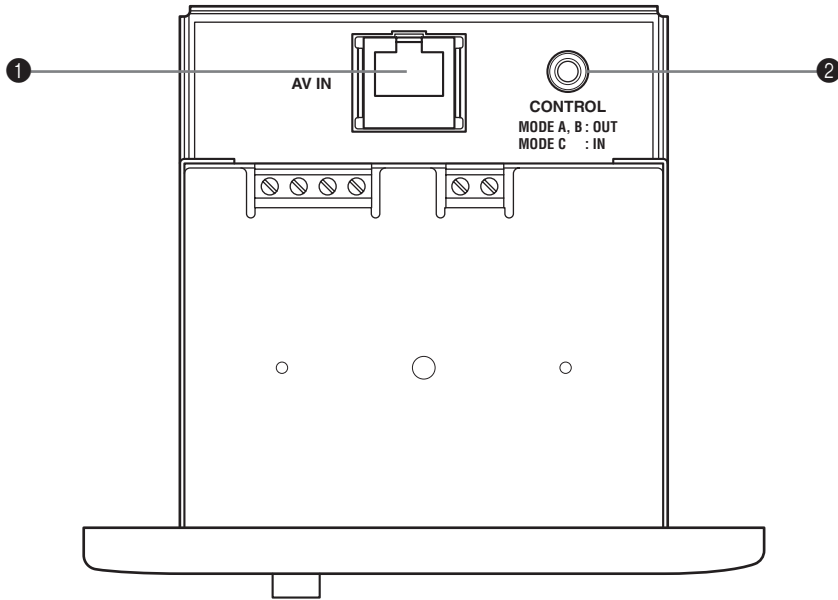
❶ SPEAKER OUT terminals

Connect speakers to these jacks using commercially available speaker cables.

❷ DC IN/OUT terminals

When this unit is connected to a client only, connect the DC power cable to these terminals to supply power to the client.

When this unit is connected to the I/O box, use these terminals to receive power from the I/O box.

Bottom panel**① AV IN jack**

Connect a client to this jack using the CAT-5 cable (straight) supplied with the client to input signals from the client.

② CONTROL OUT/IN jack

Connect another MCX-CA15 or an external component to this jack to control the power of this unit.

OPERATION




Operation modes

The MCX-CA15 features three different operation modes for user flexibility. Before using the MCX-CA15, you must set the operation mode to either “A”, “B” or “C” depending on your system configuration.

CAUTION

Be sure to set the operation mode before connecting the MCX-CA15 to a live power source.

■ Operation Modes

Mode	Usage
<p>A mode</p> 	<p>Use this mode if you want to use the MCX-CA15 as a companion to a client. In this mode you can also control a YAMAHA AV receiver connected to the MCX-CA15 or I/O box from the client's remote control using YAMAHA AV link technology. In this mode, the MCX-CA15 is fully controllable from the client.</p>
<p>B mode</p> 	<p>Use this mode if you want to use the MCX-CA15 as an amplifier for a system other than the MusicCAST system and you also want to automatically turns on the MCX-CA15 or switches it to sleep mode using input signals using the input level sensing function*. In this mode, the MCX-CA15's power is controlled by audio signals input from the connected external component.</p>
<p>C mode</p> 	<p>Use this mode if you want to use the MCX-CA15 as an amplifier for a system other than the MusicCAST system and you do not want to use the input level sensing function*. In this mode, the MCX-CA15's power is controlled by control signals input from the connected external component.</p>

* For details on the input level sensing function, see page 11.

CAUTION

In “B” and “C” modes, you cannot adjust the volume level from the MCX-CA15. Signals input through the AUDIO IN jack are not converted before being output. If loud sounds are output, your speakers may be damaged. Before listening to components for the first time, lower the volume on the component to minimum.

Notes

- In “B” mode, if no signal is detected for five minutes or longer, the MCX-CA15 enters sleep mode.
- In “B” and “C” modes, when a component is connected to the AUDIO IN jack, the input default setting is “AUDIO IN”. However, when no component is connected, the default setting is “AV IN”.
- Before connecting or disconnecting an external component to/from the AUDIO IN jack, be sure to unplug the MCX-CA15 from a live power supply.

■ Mode comparison and operation outline

Mode	IR/CTRL jack on the front panel	CONTROL IN/OUT jack on the bottom panel	Auto standby with input level sensing
A mode	IR output (using YAMAHA AV link technology)	Control output	No
B mode	(Not available)	Control output	Yes
C mode	Control input	Control input	No

The various functions of each jack are as follows:

IR output

The IR/CTRL jack on the front panel functions as an IR output jack in “A” mode. You can connect an IR flasher to this jack to control a YAMAHA AV receiver using YAMAHA AV link technology.

Note

This unit only supports IR modulation frequencies of 38 kHz.

Control output

The CONTROL IN/OUT jack on the bottom panel functions as a control output jack in “A” and “B” modes. In this case, this unit is capable of outputting power within the range 3 to 30 V from this jack. You can connect another MCX-CA15 to this jack to control the power of that MCX-CA15.

Control input

The IR/CTRL jack on the front panel and the CONTROL IN/OUT jack on the bottom panel function as a control input jack in “C” mode. In this case, this unit is capable of detecting signals within the range 3 to 30 V from these jacks. You can connect another MCX-CA15 or an external component to these jacks to control the power of this unit.

■ To switch the operation mode

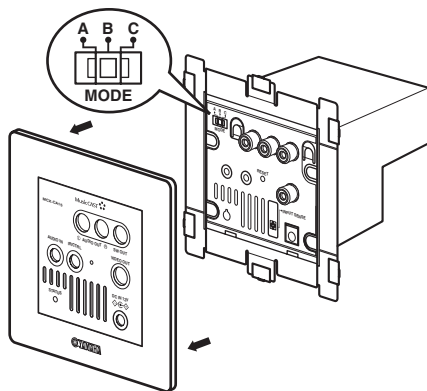
You can switch between the operation modes on the MCX-CA15 by sliding the MODE switch located on the inside front panel to the left and right.

CAUTION

- Always check that the operation mode is set correctly before performing automatic or manual configuration on the client.
- Make sure you press RESET after switching the operation mode.

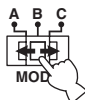
1 Gently grasp the edges of the front panel and pull it away from the main unit.

The MODE switch is now visible in the upper left corner of the inside front panel.



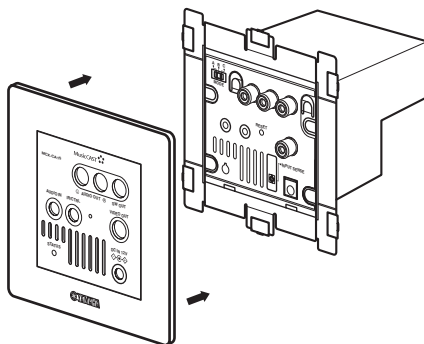
2 Slide the MODE switch to the left or right to make the desired operation mode setting.

For details about operation modes and their uses, see pages 8 and 9.



3 Press RESET using a ballpoint pen or similar object.

4 Replace the front panel by pressing it gently onto the main unit until it clicks into place.



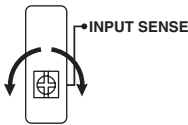
Input level sensing function

In “B” mode, the MCX-CA15 automatically activates (exits sleep mode) when its circuitry senses a signal input from an external source connected to the AUDIO IN jack.

You can use INPUT SENSE to change the detectable signal threshold.

Turn INPUT SENSE to the right to increase the detectable signal threshold.

Turn INPUT SENSE to the left to decrease the detectable signal threshold.

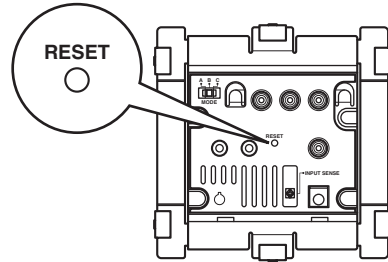


Notes

- If no input source is detected for five minutes or longer, this function automatically switches the MCX-CA15 to sleep mode.
- In sleep mode, output from the MCX-CA15 is muted.
- If you turn INPUT SENSE all the way to the left, the MCX-CA15 always remains in the active state. If you turn it all the way to the right, the MCX-CA15 always remains in sleep mode.
- This function is only available when the MCX-CA15 is set to “B” mode.

RESET button


The RESET button is located on the inside front panel.



Press the RESET button to restart the MCX-CA15 only if:



- The MCX-CA15's protection circuitry has been activated and the unit has switched itself off.
- You have changed the operation mode using the MODE switch.

Note

When the MCX-CA15 is connected to a client and you want to reset the system, press and hold /I on the client for ten seconds.

TROUBLESHOOTING

Refer to the chart below if the MCX-CA15 does not function properly. If the problem you are experiencing is not listed below or if the instruction below does not help, disconnect the power cord, and contact the nearest authorized YAMAHA dealer or service center.

Problem	Cause	Remedy	Refer to page
The AV link technology function does not work correctly.	The signal is weak (for IR flasher connections only).	Position the IR flasher so that it is in clear view of the external component's remote control receiver.	—
The client does not output any sound.	The volume setting of the client is low.	Increase the volume setting.	Quick Manual, page 9
	The speakers are not correctly connected to the MCX-CA15.	Check the connections between the speakers and MCX-CA15.	Install Manual, page 11
Using the MCX-CA15 produces interference noise on nearby radios.	The MCX-CA15 and the radio are too close to each other.	Place the MCX-CA15 and the radio at least one meter apart.	—
The STATUS indicator on the front panel of the MCX-CA15 flashes rapidly.	The cables are not connected correctly.	Connect the cables correctly. When using the MCX-CA15 in the MusicCAST system, press  /I on the client for 10 seconds to reset the system. When using the MCX-CA15 as an amplifier for another system, press RESET on the inside front panel of the MCX-CA15 to reset this unit.	11
	You are using low-impedance speakers.	Use speakers with an impedance of at least 4 Ω . When using the MCX-CA15 in the MusicCAST system, press  /I on the client for 10 seconds to reset the system. When using the MCX-CA15 as an amplifier for another system, press RESET on the inside front panel of the MCX-CA15 to reset this unit.	11

SPECIFICATIONS

AUDIO PERFORMANCE

- Minimum RMS output power
1 kHz, 1% THD..... 13 W + 13 W
- Maximum power (EIAJ)
1 kHz, 10% THD.....17 W + 17 W or 18 W (1 ch)
- Frequency response (EIAJ)20 Hz to 20 kHz, ± 1.0 dB
- Total harmonic distortion + noise (EIAJ)0.008%
- Signal to noise ratio (EIAJ) 98 dB
- Dynamic range (EIAJ) 98 dB
- Input sensitivity/impedance (1 kHz, 1% THD)
Modes A and B 220 mV/3 k Ω
Mode C 780 mV/3 k Ω
- Output level/impedance
AUDIO OUT (1 kHz, 220 mV input from AUDIO IN) 1.0 Vrms/1 k Ω
AUDIO OUT (1 kHz, 0 dB, Volume -20 dB input from the MCX-C15 connected with a 2 m CAT-5 cable (straight))
..... 1.0 Vrms/1 k Ω
SW OUT (50 Hz, 220 mV input from AUDIO IN) 1.0 Vrms/2.1 k Ω

GENERAL

- Power supply AC 100 to 240 V, 50/60 Hz
- Power consumption 40 W
- Operation temperature +5°C to +35°C
- Dimensions (W x H x D) 120 x 120 x 105 mm (4-3/4" x 4-3/4" x 4-3/16")
- Weight (without AC adaptor) 0.6 kg (1 lb 5 oz)

* The above specifications are subject to change without notice.



© 2004 YAMAHA CORPORATION All rights reserved.

YAMAHA ELECTRONICS CORPORATION, USA 6660 ORANGETHORPE AVE., BUENA PARK, CALIF. 90620, U.S.A.
YAMAHA CANADA MUSIC LTD. 135 MILNER AVE., SCARBOROUGH, ONTARIO M1S 3R1, CANADA
YAMAHA ELECTRONIK EUROPA G.m.b.H. SIEMENSSTR. 22-34, 25462 RELLINGEN BEI HAMBURG, F.R. OF GERMANY
YAMAHA ELECTRONIQUE FRANCE S.A. RUE AMBROISE CROIZAT BP70 CROISSY-BEAUBOURG 77312 MARNE-LA-VALLÉE CEDEX02, FRANCE
YAMAHA ELECTRONICS (UK) LTD. YAMAHA HOUSE, 200 RICKMANSWORTH ROAD WATFORD, HERTS WD18 7GQ, ENGLAND
YAMAHA SCANDINAVIA A.B. J A WETTERGRENS GATA 1, BOX 30053, 400 43 VÄSTRA FRÖLUNDA, SWEDEN
YAMAHA MUSIC AUSTRALIA PTY, LTD. 17-33 MARKET ST., SOUTH MELBOURNE, 3205 VIC., AUSTRALIA

YAMAHA CORPORATION
Printed in Malaysia  WD28630



English

NOTE: When using this unit (MCX-CA15) in B or C mode

When using this unit as a power amplifier for a component other than the MCX-C15 (set to B or C mode), make sure that the external AV component you connect to this unit is equipped with a volume control function. Adjust the volume using the control on the connected external AV component.

Français

REMARQUE: Dans le cas où vous utilisez cet appareil (MCX-CA15) en mode B ou C

Dans le cas où vous utilisez cet appareil comme amplificateur de puissance associé à un appareil autre que le MCX-C15 (en mode B ou C), assurez-vous que l'appareil audiovisuel extérieur que vous avez relié à cet appareil est bien pourvu d'une commande de niveau de sortie. Réglez le niveau de sortie au moyen de cette commande de l'appareil audiovisuel extérieur.

Deutsch

HINWEIS: Verwendung dieses Gerätes (MCX-CA15) im B- oder C-Modus

Falls Sie dieses Gerät als Leistungsverstärker für eine andere Komponente als den MCX-C15 (eingestellt auf den B- oder C-Modus) verwenden, stellen Sie sicher, dass die externe AV-Komponente, die Sie an dieses Gerät anschließen, mit einer Lautstärkeregelungsfunktion ausgestattet ist. Stellen Sie die Lautstärke unter Verwendung des Reglers an der angeschlossenen externen AV-Komponente ein.

Svenska

NOTERA: Vid användning av denna enhet (MCX-CA15) i läget B eller C

Se till att den externa AV-komponent som ansluts till denna enhet är försedd med reglage för volymreglering, när denna enhet används som effektförstärkare till en annan komponent än MCX-C15 (inställd i läget B eller C). Reglera volymen med hjälp av volymreglaget på den anslutna externa AV-komponenten ifråga.

Italiano

NOTE: Se si usa quest'unità (MCX-CA15) in modalità B o C

Se si usa quest'unità come amplificatore di potenza per un componente che non sia l'MCX-C15 impostato sulla modalità B o C, controllare che il componente AV esterno collegato a quest'unità sia dotato di un controllo del volume. Regolare quindi il volume con il controllo apposito del componente AV esterno.

Español

NOTA: Cuando utilice esta unidad (MCX-CA15) en el modo B o C

Cuando utilice esta unidad como un amplificador de potencia para otro componente que no sea el MCX-C15 (puesto en el modo B o C), asegúrese de que el componente AV externo que conecte a esta unidad esté equipado con una función de control de volumen. Ajuste el volumen utilizando el control del componente AV externo conectado.

Nederlands

OPMERKING: Wanneer u dit toestel (MCX-CA15) in de B of C stand gebruikt

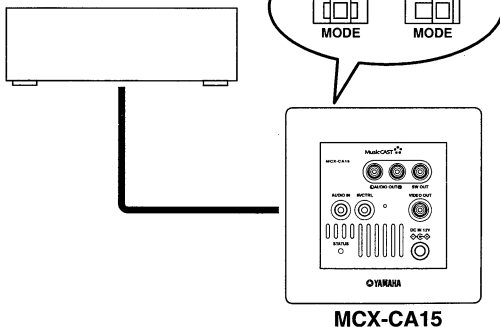
Wanneer u dit toestel gebruikt als eindversterker voor een andere component dan de MCX-C15 (in de B of C stand), moet de externe AV component die u aansluit op dit toestel zijn uitgerust met een volumeregeling. U dient het volume te regelen op de aangesloten externe AV component.

日本語

ご注意：外部機器との接続について

本機をMCX-C15以外の機器のパワーアンプとして使用する場合(BまたはCモード使用時)は、音量が調節できる外部機器と接続してください。音量調節は接続した外部機器で行なって下さい。

**External AV component
Appareil audiovisuel extérieur
Externe AV-Komponente
Extern AV-komponent
Componente AV esterno
Componente AV externo
Externe AV component
外部機器**



MusicCAST 

MCX-C15

Distributed Audio Controller

MCX-CA15

Distributed Audio Amplifier

INSTALL MANUAL

ATTENTION:

These units must be installed by a qualified technician. Do not attempt to install these units yourself.

CONTENTS

INTRODUCTION

INSTALLATION CAUTIONS	2
SUPPLIED ACCESSORIES FOR THE MCX-C15.....	4
SUPPLIED ACCESSORIES FOR THE MCX-CA15.....	5

INSTALLATION

MAKING IN-WALL CONNECTIONS	6
Before using the MCX-CA15.....	6
In-wall cable connections	7
Terminal connections	11
Mounting the MCX-C15 and MCX-CA15 in a wall.....	12
Connecting the AC adaptor and power cable	14
CONNECTING OPTIONAL COMPONENTS	15
Connecting a subwoofer	15
Connecting a TV or monitor.....	15
Connecting an amplifier or receiver	16
Connecting other external AV components.....	16
Connecting an IR flasher	17
CASCADE CONNECTIONS.....	18

CLIENT CONFIGURATION

BEFORE USING THE MusicCAST SYSTEM	19
Upgrading the MusicCAST system firmware	19
Recovering the server from an upgrade failure.....	20
Recovering the MCX-A10 client from an upgrade failure	21
CONFIGURING THE CLIENT	23
Turning on the power.....	23
Automatically configuring the client	24
Manually configuring the client.....	25


ADDITIONAL INFORMATION

TROUBLESHOOTING	28
------------------------------	-----------

INSTALLATION CAUTIONS

This manual describes the installation procedures for both the MCX-C15 Distributed Audio Controller and MCX-CA15 Distributed Audio Amplifier.

Make sure you read the following cautions before proceeding to install these units.

- These units must be installed by a qualified technician. Do not attempt to install these units yourself.
- Complete all other connections before connecting to a live power source.
- The AC adaptor must be positioned so that the power plug can be unplugged easily.
- Depending on the installation configuration method used, additional items may be required. Any additional items must be purchased prior to installation.
- Be sure to leave 10 cm of ventilation space to the top, bottom, left and right of these units, and remove all insulating materials, etc. If a support beam prevents adequate clearance around these units, make sure that sufficient space is cleared on the opposite side of the support beam.
- Avoid installing these units where foreign objects may fall onto these units and/or these units may be exposed to liquid dripping or splashing. On the top of these units, do NOT place:
 - Other components, as they may cause damage and/or discoloration on the surface of these units.
 - Burning objects (i.e. candles), as they may cause fire, damage to these units, and/or personal injury.
 - Containers with liquid in them, as they may fall and liquid may cause electrical shock to the user and/or damage to these units.
- Do not cover these units with a newspaper, tablecloth, curtain, etc. in order not to obstruct heat radiation. If the temperature inside these units rises, it may cause fire, damage to these units, and/or personal injury.
- Do not operate these units upside-down. They may overheat, possibly causing damage.
- When disconnecting the power cord from the wall outlet, grasp the plug; do not pull the cord.
- To prevent damage by lightning, disconnect the power cord from the wall outlet during an electrical storm.
- When not planning to use these units for long periods of time (i.e. when going on vacation), disconnect the AC power plug from the wall outlet.
- Before moving these units, press /I on the MCX-C15 to place them in the sleep mode, and disconnect the AC power plug from the wall outlet.
- Be sure to use the AC adaptor (LSE0215C1240) supplied with the MCX-C15. Using an AC adaptor other than the one provided may cause fire or damage to these units.
- These units are designed for home use only. Never use these units in a car, etc. Doing so may cause these units to malfunction.

SPECIAL INSTRUCTIONS FOR U.K. MODEL**IMPORTANT**

The wires in this mains lead are coloured in accordance with the following code:

GREEN-and-YELLOW: Earth

BLUE: Neutral

BROWN: Live

As the colours of the wires in the mains lead of each unit may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter

E or the safety earth symbol \perp , or coloured GREEN or GREEN - and YELLOW. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

For U.K. customers

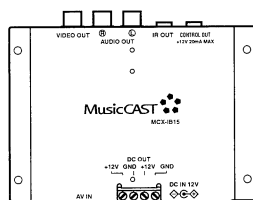
If the socket outlets in your home are not suitable for the plug supplied with this appliance, it should be cut off and an appropriate 3 pin plug fitted. For details, refer to the instructions above.

Note: The plug severed from the mains lead must be destroyed, as a plug with a bared flexible cord is hazardous if engaged in a live socket outlet.

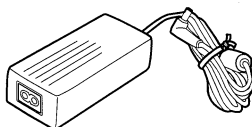
SUPPLIED ACCESSORIES FOR THE MCX-C15

After unpacking, check that you received all of the following parts.

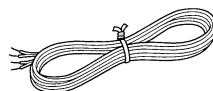
I/O box (MCX-IB15)



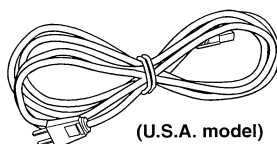
AC adaptor (LSE0215C1240)



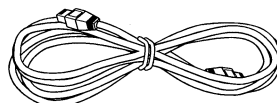
DC power cable (2 m) x 2



Power cable (1.6 m)



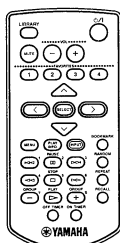
CAT-5 cable (straight, 2 m)



Spacers x 4



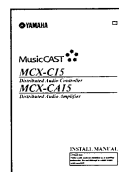
Remote control



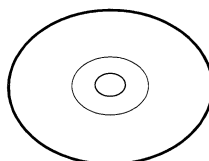
Quick Manual



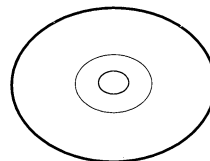
Install Manual
(this manual)



Upgrade CD-ROM
(MusicCAST Software
Version Up Disc Vol. 2.1
Including MCX-C15
Connectivity)



Owner's Manual CD-ROM



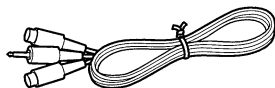
Note

The Owner's Manual CD-ROM contains both the MCX-C15 Owner's Manual (C15_Manual_E.pdf) and Version Upgrade Manual Vol. 2 (English version) (VersionUp_Manual_E.pdf) PDF files. Refer to the MCX-C15 Owner's Manual PDF for details about MCX-C15 functions. Refer to the Version Upgrade Manual Vol. 2 PDF for details about upgrading the functions of the MCX-1000 Digital Audio Server and MCX-A10 Digital Audio Terminal.

SUPPLIED ACCESSORIES FOR THE MCX-CA15

After unpacking, check that you received all of the following parts.

Pin/mini plug cable



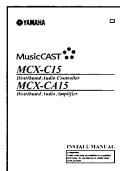
Spacers x 4



Owner's Manual



Install Manual
(this manual)



MAKING IN-WALL CONNECTIONS

Before using the MCX-CA15

The MCX-CA15 features three different operation modes for user flexibility. Before using the MCX-CA15, you must set the operation mode to either “A”, “B” or “C” depending on your system configuration.

CAUTION

Be sure to set the operation mode before connecting the MCX-CA15 to a live power source.

■ Operation Modes

Mode	Usage	Refer to page
A mode	Use this mode if you want to use the MCX-CA15 as a companion to the MCX-C15. In this mode you can also control YAMAHA AV receivers connected to the MCX-CA15 or I/O box from the MCX-C15's remote control using YAMAHA AV link technology.	7, 8 and 9
B mode	Use this mode if you want to use the MCX-CA15 as an amplifier for a system other than the MusicCAST system and you also want to automatically turn on the MCX-CA15 or switch it to sleep mode using the input level sensing function*.	10
C mode	Use this mode if you want to use the MCX-CA15 as an amplifier for a system other than the MusicCAST system and you do not want to use the input level sensing function*.	10

* For details on the input level sensing function, see the MCX-CA15 Owner's Manual, page 11.

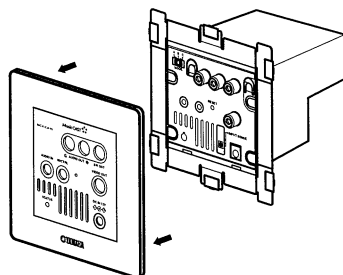
■ To switch the operation mode

You can switch between the three available operation modes using the MODE switch located inside the front panel of the MCX-CA15.

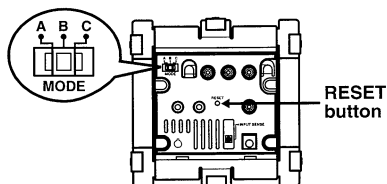
CAUTION

After switching the operation mode, be sure to press RESET.

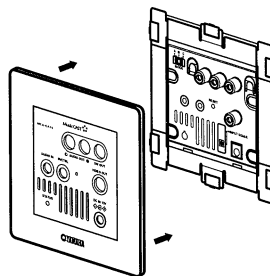
- 1 Remove the front panel of the MCX-CA15 by lifting towards you gently.



- 2 Slide the MODE switch to the left or right to set the operation mode you want to use, then press RESET.



- 3 Replace the front panel by pressing it gently onto the main body of the unit until it clicks into place.



In-wall cable connections

Method 1

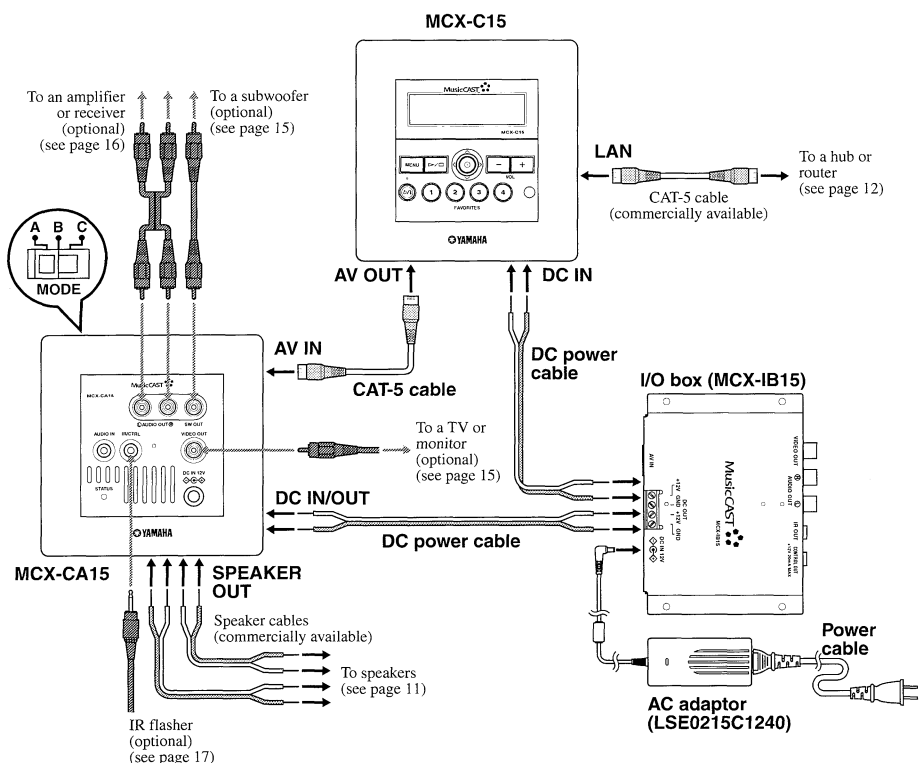
Using the MCX-C15 and MCX-CA15 with the I/O box

Use this configuration method if you want to use the MCX-CA15 as a companion to the MCX-C15. This configuration also allows you to control YAMAHA AV receivers connected to the MCX-CA15 from the MCX-C15's remote control using YAMAHA AV link technology.

In this configuration, the MCX-CA15 is fully controllable from the MCX-C15.

CAUTIONS

- Complete all other connections before connecting to a live power source.
- Be sure to set the MODE switch on the inside front panel of the MCX-CA15 to "A" before connecting to a live power source.



Note

Connect the AV OUT terminal on the MCX-C15 to the AV IN terminal on the MCX-CA15 using the supplied CAT-5 cable. Connect the LAN terminal on the MCX-C15 to a hub or router using a commercially available CAT-5 cable.

■ Method 2

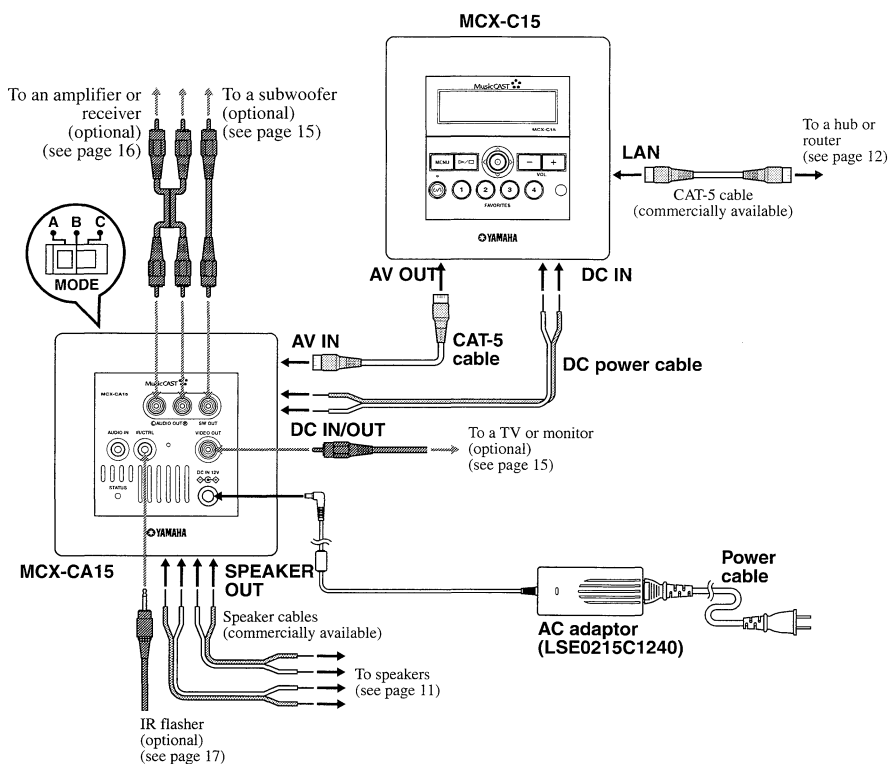
Using the MCX-C15 and MCX-CA15

Use this configuration method if you want to use the MCX-CA15 as a companion to the MCX-C15. This configuration also allows you to control YAMAHA AV receivers connected to the MCX-CA15 from the MCX-C15's remote control using YAMAHA AV link technology.

In this configuration, the MCX-CA15 supplies power to the MCX-C15.

CAUTIONS

- Complete all other connections before connecting to a live power source.
- Be sure to set the MODE switch on the inside front panel of the MCX-CA15 to "A" before connecting to a live power source.



Note

Connect the AV OUT terminal on the MCX-C15 to the AV IN terminal on the MCX-CA15 using the supplied CAT-5 cable. Connect the LAN terminal on the MCX-C15 to a hub or router using a commercially available CAT-5 cable.

■ Method 3

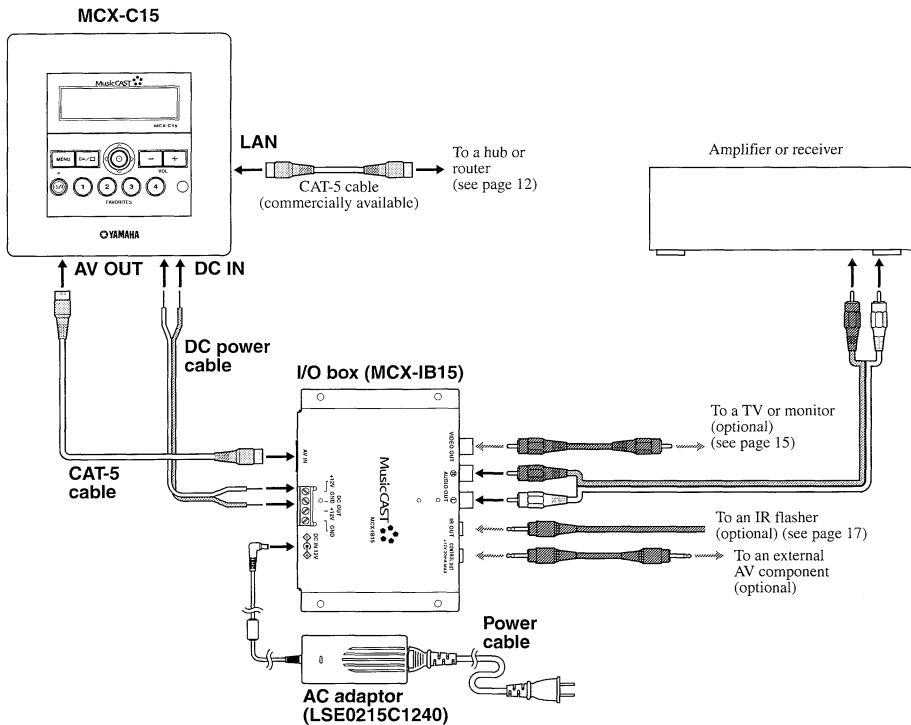
Using the MCX-C15 with an amplifier or receiver

Use this configuration method if you want to use the MCX-C15 together with an amplifier or receiver. This configuration also allows you to control YAMAHA AV receivers connected to the I/O box from the MCX-C15's remote control using YAMAHA AV link technology.

In this configuration, the I/O box supplies power to the MCX-C15.

CAUTION

Complete all other connections before connecting to a live power source.



Note

Connect the AV OUT terminal on the MCX-C15 to the AV IN terminal on the I/O box using the supplied CAT-5 cable. Connect the LAN terminal on the MCX-C15 to a hub or router using a commercially available CAT-5 cable.

■ Method 4

Using the MCX-CA15 as a stand-alone amplifier

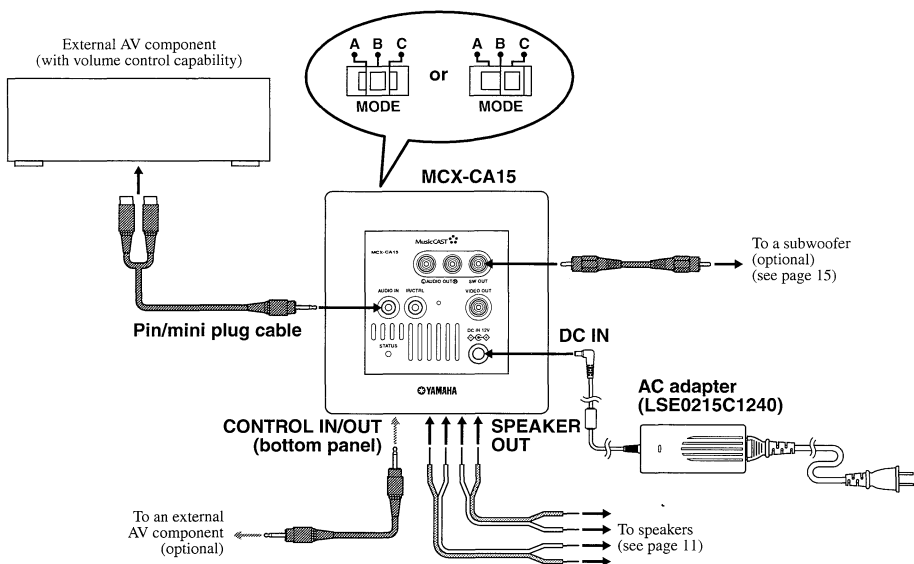
Use this configuration method if you want to use the MCX-CA15 as an amplifier for a system other than the MusicCAST system and the MCX-CA15 is set for the zone setting on your amplifier or receiver. This configuration also allows you to enjoy audio from external components connected to the MCX-CA15. If you want to automatically detect input signals using the input level sensing function*, switch the MODE switch on the inside front panel of the MCX-CA15 to “B”.

If you do not want to use the input level sensing function*, switch the MODE switch on the inside front panel of the MCX-CA15 to “C”.

* For details on the input level sensing function, see the MCX-CA15 Owner's Manual, page 11.

CAUTIONS

- Complete all other connections before connecting to a live power source.
- Be sure to set the MODE switch on the inside front panel of the MCX-CA15 to “B” or “C” before connecting to a live power source.



Notes

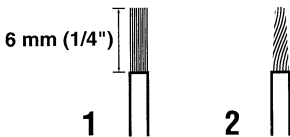
- When the MCX-CA15 is set to mode “C”, the IR/CTRL jack on the front panel functions as a CONTROL IN jack.
- When the MCX-CA15 is set to mode “B”, the CONTROL IN/OUT jack on the bottom panel functions as a CONTROL OUT jack. When the MCX-CA15 is set to mode “C”, this jack functions as a CONTROL IN jack.

Terminal connections

- To connect the speakers to the MCX-CA15

CAUTIONS

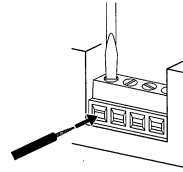
- Complete these connections before connecting to a live power source.
- Do not let the bare speaker wires touch each other or any metal part of these units. This could damage these units and/or the speakers.
- Use magnetically shielded speakers. If this type of speaker still creates interference with the monitor, place the speakers away from the monitor.
- Be sure to connect the left channel (L), right channel (R), “+” (white) and “-” (black) properly. If the connections are faulty, no sound will be heard from the speakers, and if the polarity of the speaker connections is incorrect, the sound will be unnatural and lack bass.



- 1 Remove approximately 6 mm (1/4") of insulation from the end of each speaker cable.
- 2 Twist the exposed wires of the cable together to prevent short circuits.
- 3 Loosen the terminal using a screwdriver.

- 4 Insert one bare wire into the hole of each terminal.

- 5 Tighten the terminal to secure the wire.



Black: positive (+)
White: negative (-)

- To connect DC power cables

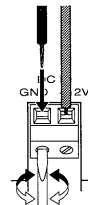
- 1 Remove approximately 6 mm (1/4") of insulation from the end of each supplied DC power cable.

- 2 Twist the exposed wires of the cable together to prevent short circuits.

- 3 Loosen the terminal using a screwdriver.

- 4 Insert one bare wire into the hole of each terminal.

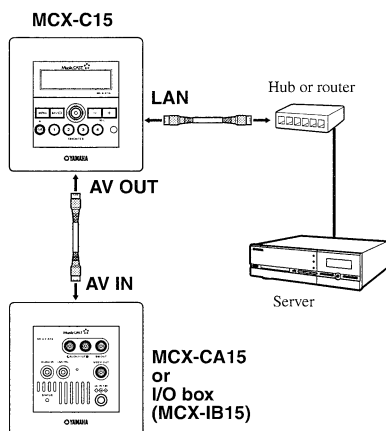
- 5 Tighten the terminal to secure the wire.



■ To connect CAT-5 cables

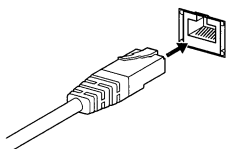
Use these connections to:

- Transfer AV signals between the MCX-C15 and MCX-CA15 (or I/O box) using the supplied CAT-5 cable (straight).
- Transfer network signals between the MCX-C15 and the server using a commercially available CAT-5 cable (straight).



CAUTIONS

- Complete these connections before connecting to a live power source.
- Do not connect the MCX-C15 directly to the server using a CAT-5 cable.



Insert the end of the CAT-5 cable (straight) into an AV OUT, AV IN or LAN terminal.

Note

When connecting the MCX-C15 to a hub or router connected to a network, make sure the DHCP server function is enabled on the server (default setting). For details, see the MCX-1000 Owner's Manual, page 110. Further, make sure the MCX-C15 settings are set to the factory default.

Mounting the MCX-C15 and MCX-CA15 in a wall

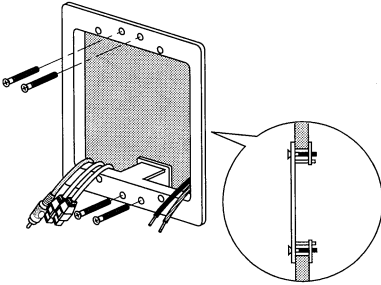
Both the MCX-C15 and MCX-CA15 are designed for wall-mounted installation using a commercially available low-voltage double gang mounting bracket. Use the following procedure to install either or both of these units in a wall.

CAUTIONS

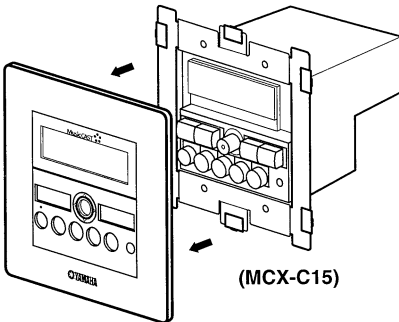
- Be sure to leave 10 cm (3-15/16") of ventilation space to the top, bottom, left and right of these units, and remove all insulating materials, etc. If a support beam prevents adequate clearance around these units, make sure that sufficient space is cleared on the opposite side of the support beam.
- When inserting these units, make sure no cables are jammed between the unit and the opposite wall.
- Complete all in-wall connections before connecting to a live power source.
- Do not install these units upside-down. Doing so may cause them to overheat, resulting in electrical shock, fire or damage to the unit.

- 1 Make a hole in the wall big enough to fit the low-voltage double gang mounting bracket you are using.

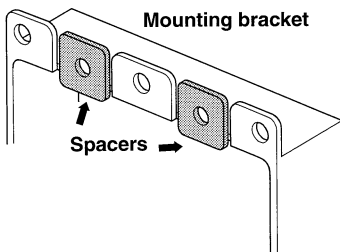
- 2** Install and secure the mounting bracket in the wall, then pull all of the in-wall connections through the mounting bracket from inside the wall.



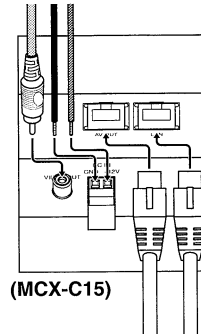
- 3** Remove the front panel from the MCX-C15 or MCX-CA15 by lifting it towards you gently.



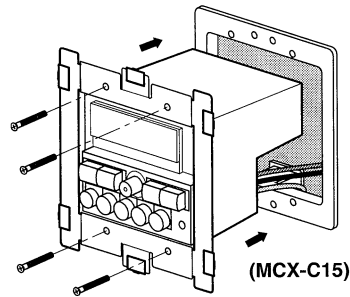
- 4** If the mounting bracket you are using has gaps for inserting spacers, remove the supplied spacers from their backing sheet and insert.



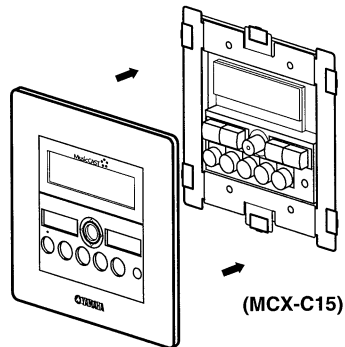
- 5** Make all necessary connections.



- 6** Insert the main body of the unit into the mounting bracket and secure, being careful not to jam the cables between the unit and the opposite wall.



- 7** Replace the front panel by pressing it gently onto the main body of the unit until it clicks into place.



Connecting the AC adaptor and power cable

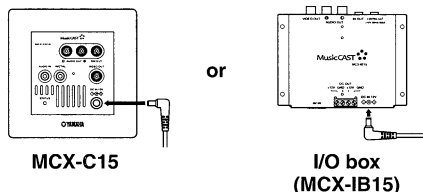
After ALL in-wall connections are complete, connect the AC adaptor and power cable to either the MCX-CA15 or I/O box as follows.

CAUTIONS

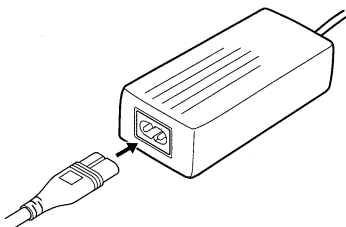
- Use the supplied AC adaptor only.
- Always make sure the AC adaptor is placed in a safe location, such as on a rack or other mounting equipment, to avoid fire or electrical shock.
- The AC adaptor must be positioned so that the power plug can be unplugged easily. When using the I/O box to supply power to the client, position the I/O box outside the wall. When using the MCX-CA15 on its own or to supply power to the client, plug the AC adaptor into the DC IN 12V jack on the front panel of the unit.
- A single AC adaptor can support the operation of an MCX-C15 and MCX-CA15 connected as described in this manual. A single AC adaptor cannot support the operation of more than one of these units at a time.
- The power to these units remains on as long as they are connected to a live power source. To turn off the power, you must unplug the power cable from the AC wall outlet to which it is connected.

■ To connect the AC adaptor to an AC wall outlet

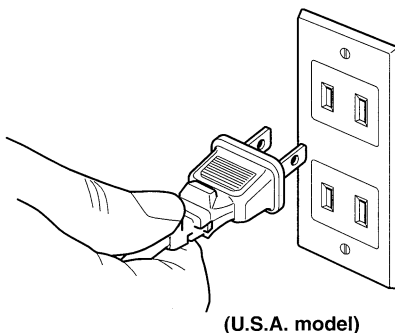
- 1 Connect the AC adaptor to the DC IN jack on either the front panel of the MCX-CA15 or the I/O box.



- 2 Connect the power cable to the AC adaptor.



- 3 Connect the power cable to an AC wall outlet.



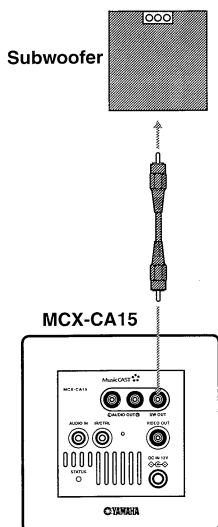
CONNECTING OPTIONAL COMPONENTS

Connecting a subwoofer

You can connect a subwoofer to the MCX-CA15 if you want to enjoy reinforced bass frequencies. The position of the subwoofer is not so critical, because low bass sounds are not highly directional. However, it is better to turn it slightly toward the center of the room to reduce wall reflections.

■ To connect a subwoofer

Connect the subwoofer to the SW OUT jack on the front panel of the MCX-CA15.

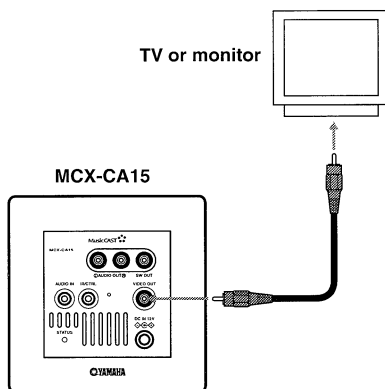


Connecting a TV or monitor

You can connect a TV or monitor to the MCX-CA15 or I/O box if you want to display the on-screen menu of the MCX-C15 on your TV or monitor.

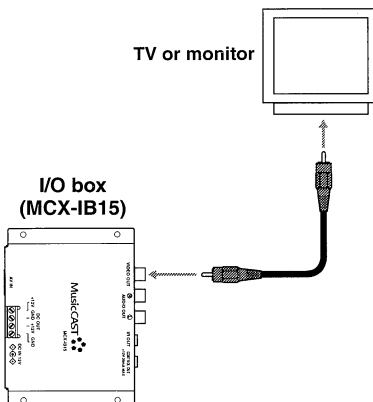
■ To connect a TV or monitor to the MCX-CA15

Connect the TV or monitor to the VIDEO OUT jack on the front panel of the MCX-CA15.



■ To connect a TV or monitor to the I/O box

Connect the TV or monitor to the VIDEO OUT jack on the I/O box.

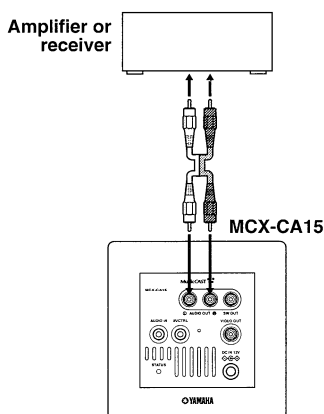


Connecting an amplifier or receiver

If you want to enjoy audio using an amplifier or receiver, you can connect one to the MCX-CA15 or I/O box.

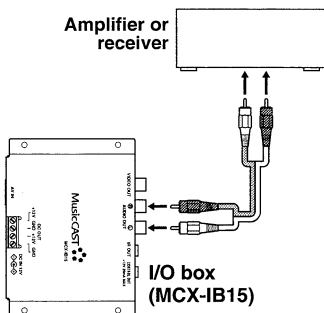
■ To connect an amplifier or receiver to the MCX-CA15

Connect the amplifier or receiver to the AUDIO OUT jacks on the front panel of the MCX-CA15.



■ To connect an amplifier or receiver to the I/O box

Connect the amplifier or receiver to the AUDIO OUT jacks on the I/O box.



Connecting other external AV components

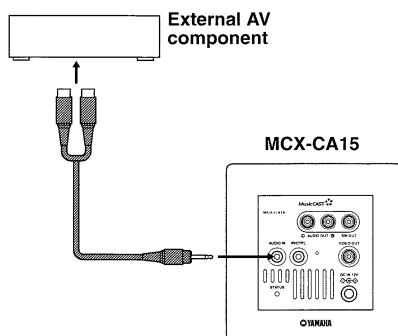
If you want to enjoy audio from an AV component, such as a DVD player, you can connect one to the MCX-CA15.

Note

Make sure the external AV component you connect is equipped with a volume control function.

■ To connect an external AV component to the MCX-CA15

Connect the external AV component to the AUDIO IN jack on the front panel of the MCX-CA15.



Connecting an IR flasher

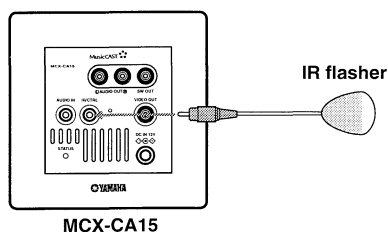
If you want to use YAMAHA AV link technology to control a YAMAHA AV receiver, you must connect an IR flasher to the MCX-CA15 or I/O box.

Note

Make sure the MODE switch on the inside front panel of the MCX-CA15 is set to "A" when connecting an IR flasher.

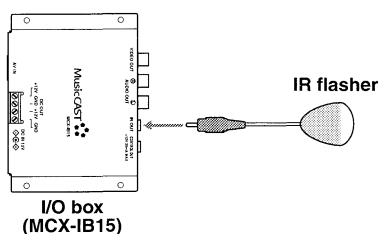
■ To connect an IR flasher to the MCX-CA15

Connect the IR flasher to the IR/CTRL jack on the front panel of the MCX-CA15.



■ To connect an IR flasher to the I/O box

Connect the IR flasher to the IR OUT jack on the I/O box.

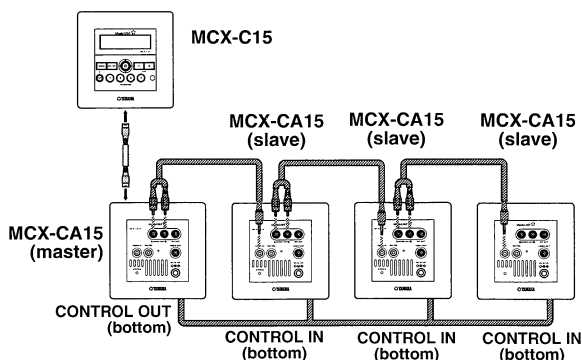


CASCADE CONNECTIONS

You can use the CONTROL OUT/IN jack on the bottom panel of the MCX-CA15 to connect to other MCX-CA15's to enhance your listening experience.

The following are examples of cascade connections.

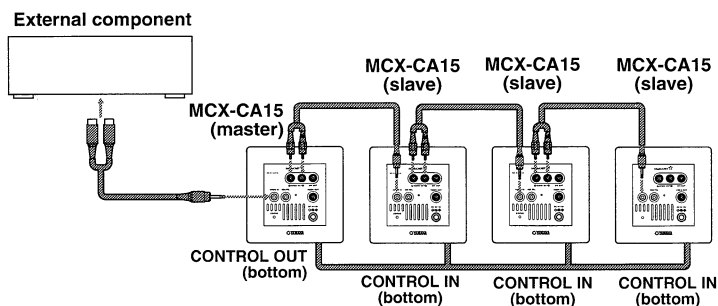
■ Example 1



CAUTION

For the master MCX-CA15, set the MODE switch on the inside front panel to "A". Set all other MCX-CA15's (slaves) to "C".

■ Example 2



CAUTION

For the master MCX-CA15, set the MODE switch on the inside front panel to "B". Set all other MCX-CA15's (slaves) to "C".

Notes

- The power of the slave MCX-CA15's is coupled to that of the master MCX-CA15.
- You can connect up to a total of four MCX-CA15's using a cascade (master/slave) connection configuration.

BEFORE USING THE MusicCAST SYSTEM

Upgrading the MusicCAST system firmware

After installation of the MCX-C15 is complete, you must upgrade the MusicCAST system firmware on the MCX-1000 (hereafter, “the server”) using the Upgrade CD-ROM (MusicCAST Software Version Up Disc Vol. 2.1 Including MCX-C15 Connectivity) provided with the MCX-C15 (hereafter, “the client”).

CAUTION

If the MusicCAST firmware is not upgraded, your client may not function correctly.

Notes

- Before upgrading the MusicCAST system firmware, be sure to stop playback on all MusicCAST clients connected to the server.
- For information on function upgrades for the server, see the Version Upgrade Manual Vol. 2 available on the Owner’s Manual CD-ROM provided with the client.
- If an MCX-A10 client (wireless/wired type) is connected to the MusicCAST system, it must also be upgraded. For details, see the Version Upgrade Manual Vol. 2 available on the Owner’s Manual CD-ROM provided with the client.

Server operation:

- 1 Press TOP MENU on the server.**
- 2 Press \wedge / \vee to choose “System Setup” and press SELECT.**
- 3 Press \wedge / \vee to choose “System Utilities” and press SELECT.**

- 4 Press \wedge / \vee to choose “System Update” and press SELECT.**
The System Update screen appears.

- 5 Press OPEN/CLOSE to open the disc tray, and insert the Upgrade CD-ROM (MusicCAST Software Version Up Disc Vol. 3).**

- 6 Press OPEN/CLOSE to close the disc tray.**
The server automatically checks the content of the upgrade CD-ROM, and the message “Update CD is ready” appears on the on-screen display.

- 7 Press SELECT.**
The message “READING” appears on the on-screen display.
After the upgrade CD-ROM is read, the message “UPDATE OK” appears in the lower left corner of the screen.

- 8 Press OPEN/CLOSE to open the disc tray and remove the upgrade CD-ROM, then press STANDBY/ON.**
The MusicCAST server switches to standby mode.

- 9 Press STANDBY/ON once again to turn on the server.**
The upgrade process is complete.

Notes

- If the message “Update CD is ready” does not appear on the display, press OPEN/CLOSE to eject the upgrade CD-ROM and reload it in the disc tray. If the message does not appear after reloading the CD-ROM, contact the store of purchase or your nearest YAMAHA dealer.
- Depending on the version currently installed on your server and MCX-A10 client, you may need to upgrade the MusicCAST system firmware more than once.

MCX-A10 client operation:

- 1** Press and hold MENU on the client until the Top Menu screen is displayed.
- 2** Press \wedge / \vee to choose "Setup" and press SELECT.
- 3** Press \wedge / \vee to choose "System" and press SELECT.
- 4** Press \wedge / \vee to choose "System Update" and press SELECT.
The System Update screen appears.
- 5** Press \triangleright .
The client automatically checks the content of the upgrade CD-ROM, and the messages "Receiving" > "Data Check" > "Flash Erase" > "Flash Write" > "Verify" > "Update O.K." appear in succession in the front panel display. The client restarts automatically. The upgrade process is complete.

When the upgrade for both the server and the MCX-A10 client is complete, you can use the server and MCX-A10 client functions that were upgraded through this procedure.

Recovering the server from an upgrade failure

If the version upgrade fails due to a power cut or for any other reason, restart the server and follow the procedure below.

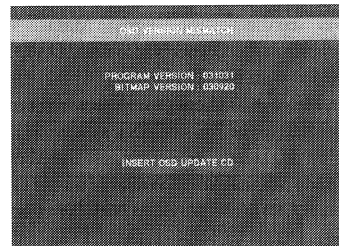
If the version upgrade is successful, "3.0.x" appears in the "Main CPU" and "MCX-A10" fields of the System version screen. For details, see the MCX-1000 Owner's Manual, page 132.

Note

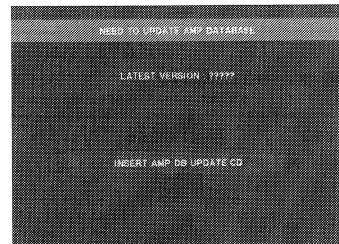
Do not remove the upgrade CD-ROM from the CD drive until the recovery operation is complete.

■ Case 1

- The "OSD VERSION MISMATCH" screen appears
- The "NEED TO UPDATE AMP DATABASE" screen appears



or



In this case, the recovery operation starts automatically. When the message "UPDATE OK" or "RECOVERY OK" appears on the left side of the screen, follow the procedure below.

- 1 Press **STANDBY/ON** on the server.
The server switches to the standby mode.

2 Press **STANDBY/ON** once more.

The server restarts.

If the Top Menu screen appears after the server restarts, the recovery operation is complete.

If the recovery operation starts again, follow the on-screen instructions, then restart the server once more.

■ Case 2

The Top Menu screen appears (there may be some display noise) and the system operates normally

Carry out the version upgrade procedure for the server once more (page 19).

■ Case 3

- The Top Menu screen appears but the system does not operate normally
- The server does not restart normally

Contact the store of purchase or your nearest YAMAHA dealer.

Recovering the MCX-A10 client from an upgrade failure

If the version upgrade fails due to a power cut or for any other reason, restart the client and follow the procedure below.

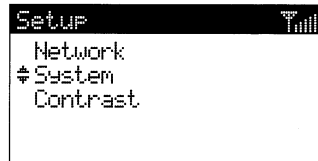
If the version upgrade is successful, “3.0.x” appears in the “Version” field of the Information screen. For details, see the MCX-A10 Owner’s Manual, page 64.

Note

Be careful not to select “System Reset” instead of “System Update”. If you select “System Reset” by mistake, the network settings of the client will be reset to the default settings.

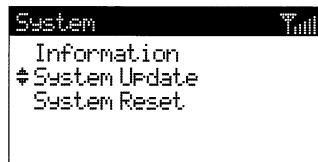
■ Case 1

The Setup screen appears instead of the Top Menu screen



- 1 Press **^**/**v** to choose “System” and “System Update”.

The System Update screen appears.



Sample screen display

2 Press ▷ .

The recovery operation starts automatically, and the messages "Receiving" > "Data Check" > "Flash Erase" > "Flash Write" > "Verify" > "Update O.K." appear in succession in the System Update screen.

The client restarts automatically and the Top Menu screen appears.

The recovery process is complete.

■ **Case 2**

The Top Menu screen appears and the system operates normally

Carry out the version upgrade procedure for the client once more (page 19).

CONFIGURING THE CLIENT

Turning on the power

When all connections and the MusicCAST system firmware upgrade are complete, turn on the client's power.

The client has two operation modes:

- On** The client is connected to a power source and is in operation mode.
- Sleep** The client is connected to a power source and activates only when the unit is operated or it receives an infrared signal from the remote control.

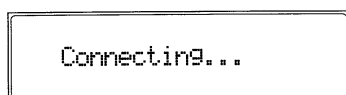
Before proceeding, make sure the power to the server is turned on.

- 1 Press ϕ/I on either the remote control or front panel.**

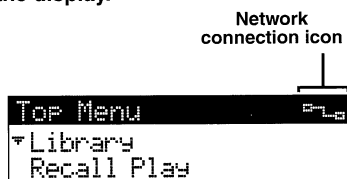
The client turns on and the MusicCAST Startup screen is displayed.



- 2 The client attempts to connect to the server, and the following screen is displayed.**



- 3 If the client is able to make a connection, the Top Menu screen appears and the network connection icon appears in the top right corner of the display.**



If the client is unable to connect to the server, it continues displaying the "Connecting..." message. Press any button on the client to cancel the connection process, then check that your client network connection settings are correct. For details, see the MCX-C15 Owner's Manual, page 55.

Note

If no operation is performed for 30 minutes, the client automatically switches to sleep mode. Press SELECT or ϕ/I to reactivate the client.

Automatically configuring the client

Use the Auto Configuration function to automatically connect the client to the server.

Before performing the Auto Configuration, be sure to:

- Complete all connections for the client and its companion components.
- Upgrade the MusicCAST system firmware on both the server and the client.
- Set the server to Auto Configuration mode. For details, see the MCX-1000 Owner's Manual, page 106.

Client operation:

- 1 Press and hold MENU until the Top Menu screen is displayed.

- 2 Press \wedge/\vee to choose "Setup" then press SELECT.



- 3 Press \wedge/\vee to choose "Network" then press SELECT.

- 4 Press \wedge/\vee to choose "Auto Configuration" then press SELECT.

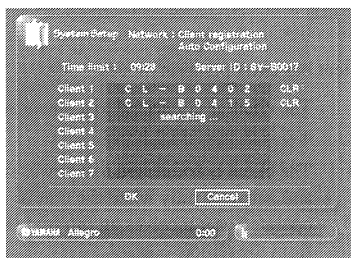
- 5 Press \triangleright to begin the Auto Configuration process.

If the client finds more than one server, it displays all the servers it finds in the front panel display. In this case, press \wedge/\vee to choose the ID of the server you want to use, then press SELECT.

Press \leftarrow to cancel the Auto Configuration process without making any changes.

- 6 The client attempts to connect to the server.

The Client ID of the client being configured appears on the on-screen display of the server.

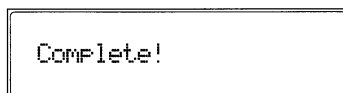


Server operation:

Press $\wedge/\vee/\leftarrow/\rightarrow$ on the server remote control to move the cursor to "OK", then press SELECT.

The server restarts its network hardware. This may take up to five minutes.

When the Auto Configuration process is complete, the following message appears in the client's front panel display.



Manually configuring the client

You can manually configure the client to conform with the settings of an existing network. Manual client settings are only necessary if you are also using a manual configuration for the server. In most cases, Auto Configuration is adequate for using the MusicCAST system.

When making manual settings, it is not always necessary to set all of the parameters described in the following section. The settings you make will depend on the network to which the client is connected. However, be sure to set the following:

- Server ID
- IP address for the client (when DHCP is set to OFF)
- Subnet mask*
 - * The server and client will only function correctly if they are under the same subnet (running under one or more hubs).

Before performing Manual Configuration, be sure to:

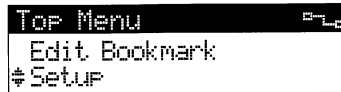
- Complete all connections for the client and its companion components and turn on the client.
- Upgrade the MusicCAST system firmware on the server.
- Turn on the server.
- Set the client ID for each client connected to the MusicCAST system on the server. For details, see the MCX-1000 Owner's Manual, page 113.
- Set the Subnet Mask address on the server. (This must be the same for both the server and the client.) For details, see the MCX-1000 Owner's Manual, page 109.

Note

You must perform the Manual Configuration procedure if your MusicCAST system uses more than one server.

- 1 Press and hold MENU until the Top Menu screen is displayed.

- 2 Press \wedge / \vee to choose "Setup" and press SELECT.



- 3 Press \wedge / \vee to choose "Network" and press SELECT.

- 4 Press \wedge / \vee to choose "Manual Setup" and press SELECT.

Set the desired settings.

■ Setting the server ID

You can manually specify the ID of the server you want to connect to.



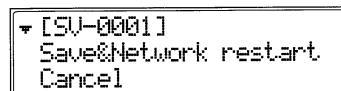
You must enter the server ID exactly as it appears on the server. To view the server's ID, see the MCX-1000 Owner's Manual, page 112.

- 1 Select "Setup" > "Network" > "Manual Setup" from the Top Menu.

- 2 Press \wedge / \vee to choose "Server ID" and press SELECT.



- 3 Press \triangleright to move the cursor to the server ID field and press SELECT.



- 4 Enter the server ID for the server you want to connect to.**

Press \wedge / \vee to choose characters and \langle / \rangle to move the cursor to the left or right.

- 5 When you have finished, press SELECT to confirm the server ID.**

- 6 Press \wedge / \vee to choose "Save & Network Restart" and press SELECT.**

The server restarts its network hardware. This may take up to five minutes.

```
[SV-0001]
# Save&Network restart
Cancel
```

To cancel without making any changes, choose "Cancel" and press SELECT.

■ Setting the DHCP mode

If you want the client to automatically receive a new IP address from the network DHCP server each time it is turned on, make sure the DHCP mode setting is set to "ON" (the default setting). This is useful if you do not want to pre-set an IP address for each client connected to your MusicCAST system.

- 1 Select "Setup" > "Network" > "Manual Setup" from the Top Menu.**

- 2 Press \wedge / \vee to choose "DHCP" and press SELECT.**

```
Manual Setup
Server ID
# DHCP
```

- 3 Press \wedge / \vee to choose "ON" or "OFF" and press SELECT.**

ON Select to use DHCP configurations. This is the default setting. When "ON" is selected, the server provides DHCP services to the client. If you want to use another DHCP server, you may need to reset the IP address being supplied to the client (see the owner's manual provided with the DHCP server). Be sure to turn off the power to the client before modifying settings on the DHCP server.

OFF Select if you do not want to use DHCP to configure client network settings. In this case, the client will use the IP address you specify in "Setting the IP address". You should also specify a subnet mask as described in "Setting the subnet mask".

■ Setting the IP address

You can manually enter the IP address you want to use for the client. This setting is only possible when the DHCP mode is set to "NO".

- 1 Select "Setup" > "Network" > "Manual Setup" from the Top Menu.**

- 2 Press \wedge / \vee to choose "IP Address" and press SELECT.**

```
Manual Setup
DHCP
# IP Address
```

- 3 Press \rangle to move the cursor to the IP address field and press SELECT.**

```
[ 0. 0. 0. 0 ]
Save&Network restart
Cancel
```

4 Enter the client's IP address.

Press \wedge / \vee to select numbers and \lt / \gt to move the cursor to the left or right.
Be sure to enter all four numbers.

5 When you have finished, press SELECT to confirm the IP address.

6 Press \wedge / \vee to choose "Save & Network Restart" and press SELECT.

The client resets its network hardware.

```
[ 0. 0. 0. 0]
+ Save&Network restart
Cancel
```

To cancel without making any changes, choose "Cancel" and press SELECT.

■ Setting the subnet mask address

You can manually enter the subnet mask. This setting is only possible when the DHCP mode is set to "NO".



You must enter the subnet mask exactly as it appears on your server. To view the server's subnet mask, see the MCX-1000 Owner's Manual, page 112.

1 Select "Setup" > "Network" > "Manual Setup" from the Top Menu.

2 Press \wedge / \vee to choose "Subnet Mask" and press SELECT.

```
Manual Setup
IP Address
+ Subnet Mask
```

3 Move the cursor to the subnet mask field and press SELECT.

```
[ 0. 0. 0. 0]
Save&Network restart
Cancel
```

4 Enter the subnet mask address.

Press \wedge / \vee to select numbers and \lt / \gt to move the cursor to the left or right.
Be sure to enter all four numbers.

5 When you have finished, press SELECT to confirm the subnet mask address.

6 Press \wedge / \vee to choose "Save & Network Restart" and press SELECT.

The client resets its network hardware.

```
[ 0. 0. 0. 0]
+ Save&Network restart
Cancel
```

To cancel without making any changes, choose "Cancel" and press SELECT.

TROUBLESHOOTING

Refer to the chart below if the client does not function properly after installation. If the problem you are experiencing is not listed below or if the instruction below does not help, disconnect the power cord, and contact the nearest authorized YAMAHA dealer or service center.

Problem	Cause	Remedy	Refer to page
The client does not operate as described in this manual.	The MusicCAST system firmware has not been upgraded.	Upgrade the MusicCAST system firmware on the server.	19
The Auto Configuration process does not appear to work correctly.	The network is not configured correctly.	Check the network settings on the server.	MCX-1000 Owner's Manual, page 112
	The server is not set to Auto Configuration mode.	Set the server to Auto Configuration mode.	MCX-1000 Owner's Manual, page 106
	The server is storing songs or recording.	Stop recording and start the Auto Configuration process again.	24, MCX-1000 Owner's Manual, page 24
	There is more than one DHCP server in the network trying to use the same IP address.	Deactivate the server DHCP function.	MCX-1000 Owner's Manual, page 110
You cannot start playback on the client.	Auto Configuration is not complete.	Run the Auto Configuration process.	24
	The network is not configured correctly.	Check the network settings of the client and server.	MCX-C15 Owner's Manual, page 55, MCX-1000 Owner's Manual, page 112
	The server is turned off.	Turn on the server.	—
	The server's hard disk drive does not contain any songs that have been fully encoded in MP3 format.	Register songs stored from external components to the library, or wait until the server completes encoding songs in MP3 format.	MCX-1000 Owner's Manual, page 21

Problem	Cause	Remedy	Refer to page
The client does not output any sound.	The volume setting of the client is low.	Increase the volume setting.	Quick Manual, page 9
	The speakers are not correctly connected to the MCX-CA15.	Check the connections between the speakers and the MCX-CA15.	11
	The “Amplifier” menu settings on the client are incorrect.	Make sure the name of the receiver connected to the client is set correctly in the “Amplifier” menu.	MCX-C15 Owner’s Manual, page 43
Playback from the client skips.	The network is extremely congested.	Place your clients under an independent subnet mask, or upgrade your network hardware.	—
The STATUS indicator on the front panel of the MCX-CA15 flashes rapidly.	The cables are not connected correctly.	Connect the cables correctly. When using the MCX-CA15 in the MusicCAST system, press ϕ/I on the client for 10 seconds to reset the system. When using the MCX-CA15 as an amplifier for another system, press RESET on the inside front panel of the MCX-CA15 to reset this unit.	6
	You are using low-impedance speakers.	Use speakers with an impedance of at least 4 Ω . When using the MCX-CA15 in the MusicCAST system, press ϕ/I on the client for 10 seconds to reset the system. When using the MCX-CA15 as an amplifier for another system, press RESET on the inside front panel of the MCX-CA15 to reset this unit.	6



© 2004 YAMAHA CORPORATION All rights reserved.

YAMAHA ELECTRONICS CORPORATION, USA 6660 ORANGETHORPE AVE., BUENA PARK, CALIF. 90620, U.S.A.
YAMAHA CANADA MUSIC LTD. 135 MILNER AVE., SCARBOROUGH, ONTARIO M1S 3R1, CANADA
YAMAHA ELECTRONIK EUROPA G.m.b.H. SIEMENSSTR. 22-34, 25462 RELLINGEN BEI HAMBURG, F.R. OF GERMANY
YAMAHA ELECTRONIQUE FRANCE S.A. RUE AMBROISE CROIZAT BP70 CROISSY-BEAUBOURG 77312 MARNE-LA-VALLEE CEDEX02, FRANCE
YAMAHA ELECTRONICS (UK) LTD. YAMAHA HOUSE, 200 RICKMANSWORTH ROAD WATFORD, HERTS WD18 7GQ, ENGLAND
YAMAHA SCANDINAVIA A.B. J A WETTERGRENS GATA 1, BOX 30053, 400 43 VÄSTRA FRÖLUNDA, SWEDEN
YAMAHA MUSIC AUSTRALIA PTY, LTD. 17-35 MARKET ST., SOUTH MELBOURNE, 3205 VIC., AUSTRALIA

YAMAHA CORPORATION
Printed in Malaysia C WD28540



Registering Your New Yamaha Product is Fast and Easy

Thank you for purchasing a new product from Yamaha Electronics. We'd like to continue providing you with high quality products and better service. So, we've made it simple to register your new product purchase online. Please take a few minutes to visit our website at **www.yamaha.com/YEC/registration/** and complete the information and questions included there. We appreciate your business and we look forward to hearing from you.

Failure to complete the registration form does not diminish your warranty rights in any way.

Register online at **www.yamaha.com/YEC/registration/**



WD19880

YAMAHA Electronics Corporation, USA, is proud of the experienced craftsmanship that goes into each and every YAMAHA MusicCAST™ product. YAMAHA sells its MusicCAST™ products only through a network of high quality, specially authorized dealers and is pleased to offer the following Limited Warranty, which applies only to products purchased by consumers directly from our authorized dealers. We suggest that you read the Limited Warranty thoroughly, and invite you to contact your authorized YAMAHA dealer or the YAMAHA Electronics Corporation, USA, Service Department if you have any questions.



MUSICCAST™ LIMITED WARRANTY

Duration of Warranty (beginning from the date of first consumer purchase) 2 years

What is Covered and what is Not Covered:

This warranty covers all defects in materials or workmanship in this product, but DOES NOT COVER the following:

- (1) Damage, deterioration or malfunction resulting from:
 - a. Accident, negligence, misuse, abuse, improper installation or operation or failure to follow Owner's Manual instructions.
 - b. Any shipment of the product. (Claims must be presented to the carrier.)
 - c. Repair or attempted repair by anyone other than YAMAHA or a specially authorized YAMAHA Service Center.
- (2) Any unit which has been altered, or on which the serial number or cabinet has been defaced, modified or removed.
- (3) Consequential, economic or property damage.
- (4) Normal wear, battery replacement, filter cleaning or replacement and any periodic maintenance.
- (5) Initial setup or check-ups with no defects found.
- (6) Labor & materials required to remove and/or reinstall any or all portions of the product.
- (7) Any unit which has not been purchased by the consumer directly from an authorized YAMAHA dealer in the USA. If you are uncertain as to whether a dealer has been authorized by YAMAHA, please contact YAMAHA at the telephone number shown below.
- (8) Any unit used for industrial or commercial purposes.
- (9) Interference arising from the use of wireless communication devices (e.g., 2.4 GHz cordless telephones), or other radio frequency emitting products, such as microwave ovens, whether such interference impairs the operation of the MusicCast product, or vice-versa. Consult the Owner's Manual for guidance on set-up procedures for minimizing the risks of interference.

Who may enforce the warranty:

This warranty is enforceable only by the original purchaser of the product, who purchased from a Yamaha dealer authorized to make that sale.

What we will pay for and what you must pay for:

YAMAHA will repair or replace a unit covered by this warranty, without charge to the consumer for labor or materials. Some repair parts may be used or rebuilt replacements, that meet or exceed Yamaha specifications for new parts, in exchange for defective parts. **YOU ARE RESPONSIBLE FOR ANY INSTALLATION OR REMOVAL AND FOR ANY INITIAL SHIPPING CHARGES**, if the product must be shipped for warranty service. However, we will pay the return shipping charges to any destination within the USA if we determine that the repairs are covered by the warranty.

How you can get Warranty Service:

- (1) If your YAMAHA product(s) appears to require service, read the troubleshooting portion of the Owner's Manual or contact the authorized YAMAHA dealer and the dealer will advise you of the procedures to be followed. If this is not practical, contact YAMAHA at the telephone number shown below. We may request that you send the defective product(s) to a specially authorized YAMAHA Service Center, or authorize return of the defective product(s) to YAMAHA for repair.
- (2) Product(s) shipped for service should be packed securely and must be accompanied by a detailed explanation of the problem(s) requiring service, as well as your sales receipt or other proof of date and place of purchase, as evidence of warranty coverage.
- (3) Warranty registration is not required for warranty coverage.

Limitation of Implied Warranties:

ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS EXPRESS WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

Exclusion of Damages:

YAMAHA'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, AT OUR OPTION. IF WE ELECT TO REPLACE THE PRODUCT, THE REPLACEMENT MAY BE A RECONDITIONED UNIT. YAMAHA SHALL NOT BE LIABLE FOR DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE, DAMAGE TO ANY OTHER EQUIPMENT OR OTHER ITEMS AT THE SITE OF USE, OR ANY OTHER DAMAGES WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Should you have any questions about service received or if you need assistance in obtaining warranty service, please contact:



SERVICE DEPARTMENT

YAMAHA Electronics Corporation, USA

6660 Orangethorpe Avenue, Buena Park, California 90620-1345

Telephone: (888) 435-7932, 8 AM to 4 PM Pacific time

Do not return any product to the above address without a written Return Authorization issued by YAMAHA.